US008168871B1

(12) **United States Patent**
Sweedler

(10) **Patent No.: US 8,168,871 B1**
(45) **Date of Patent: May 1, 2012**

(54) **BOW ATTACHMENT**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 8 days.

(21) Appl. No.: **12/963,319**

(22) Filed: **Dec. 8, 2010**

(51) **Int. Cl.**
G10D 1/02 (2006.01)

(52) **U.S. Cl.** **84/282**

(58) **Field of Classification Search** 84/282
See application file for complete search history.

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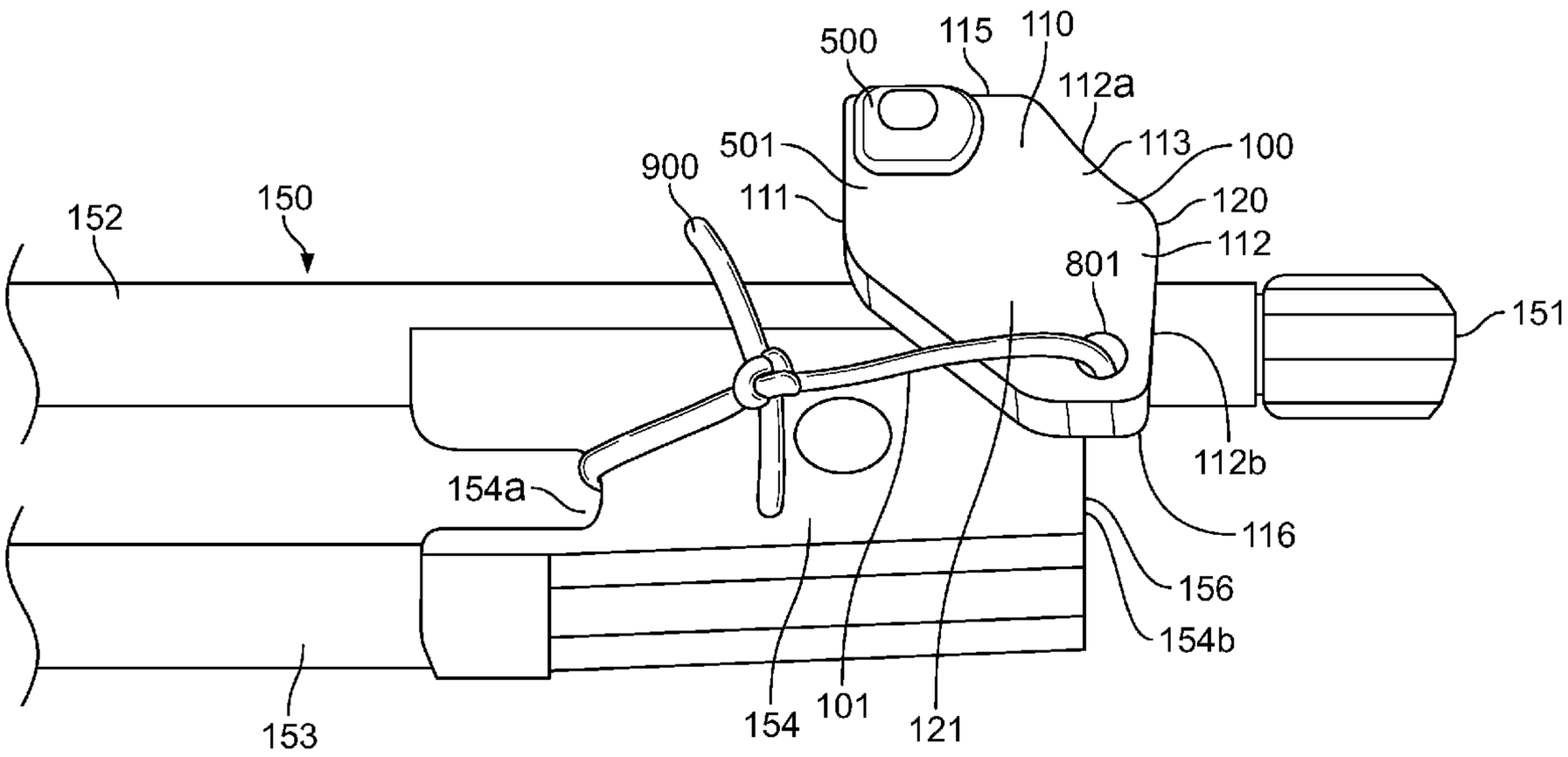
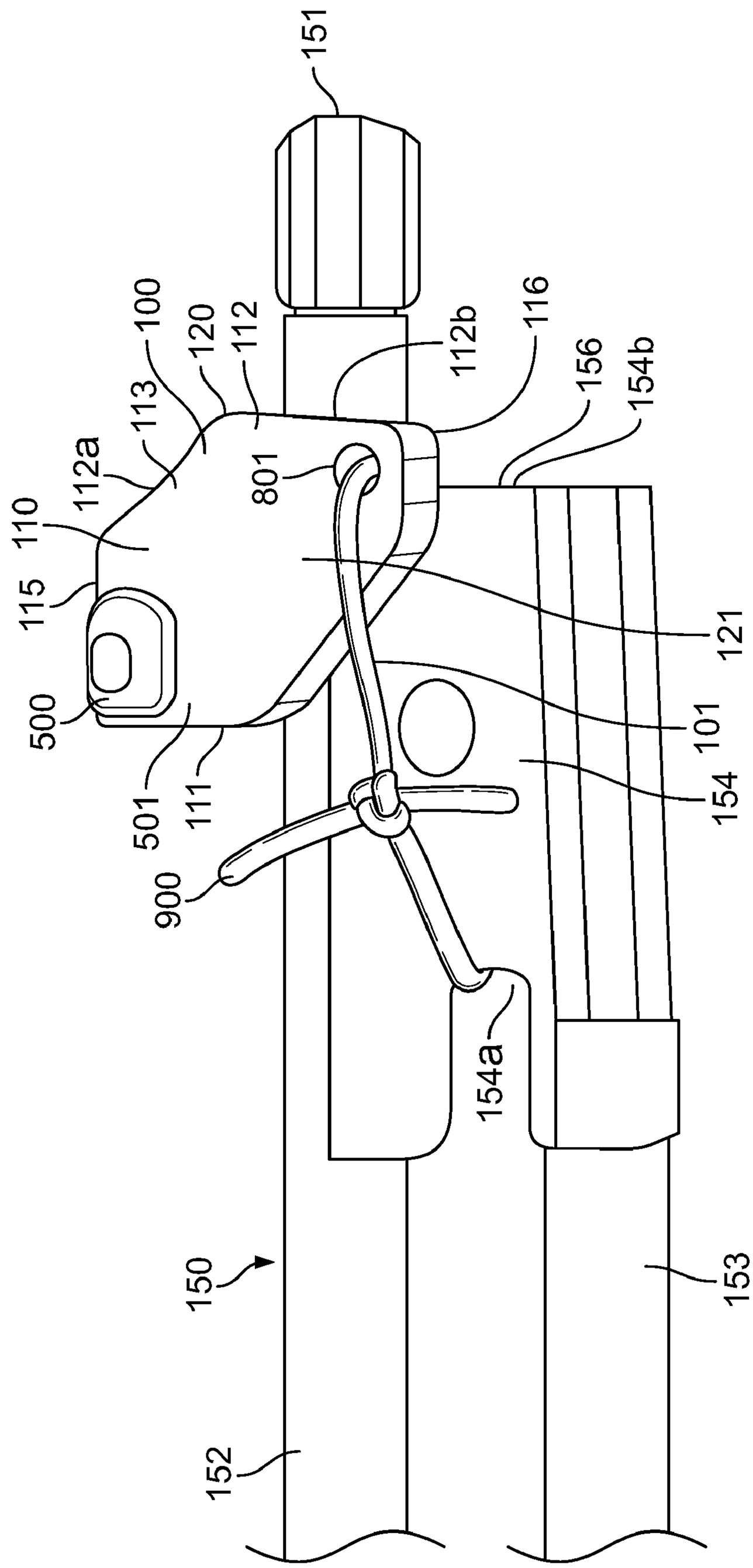
(57) **ABSTRACT**

A bow attachment device attaches to the end of a bow to compensate for a smaller or under-developed digit. The bow attachment device provides a block that attaches to the bow in a manner allowing the stick of the bow to slide through the block. A leg on the block provides a ledge that extends outward from the block allowing the digit to rest on the ledge and be elevated higher than other digits. The device creates an extension between the bow stick and the smaller digit allowing the digit to participate in subtle manipulation of the bow.

9 Claims, 8 Drawing Sheets

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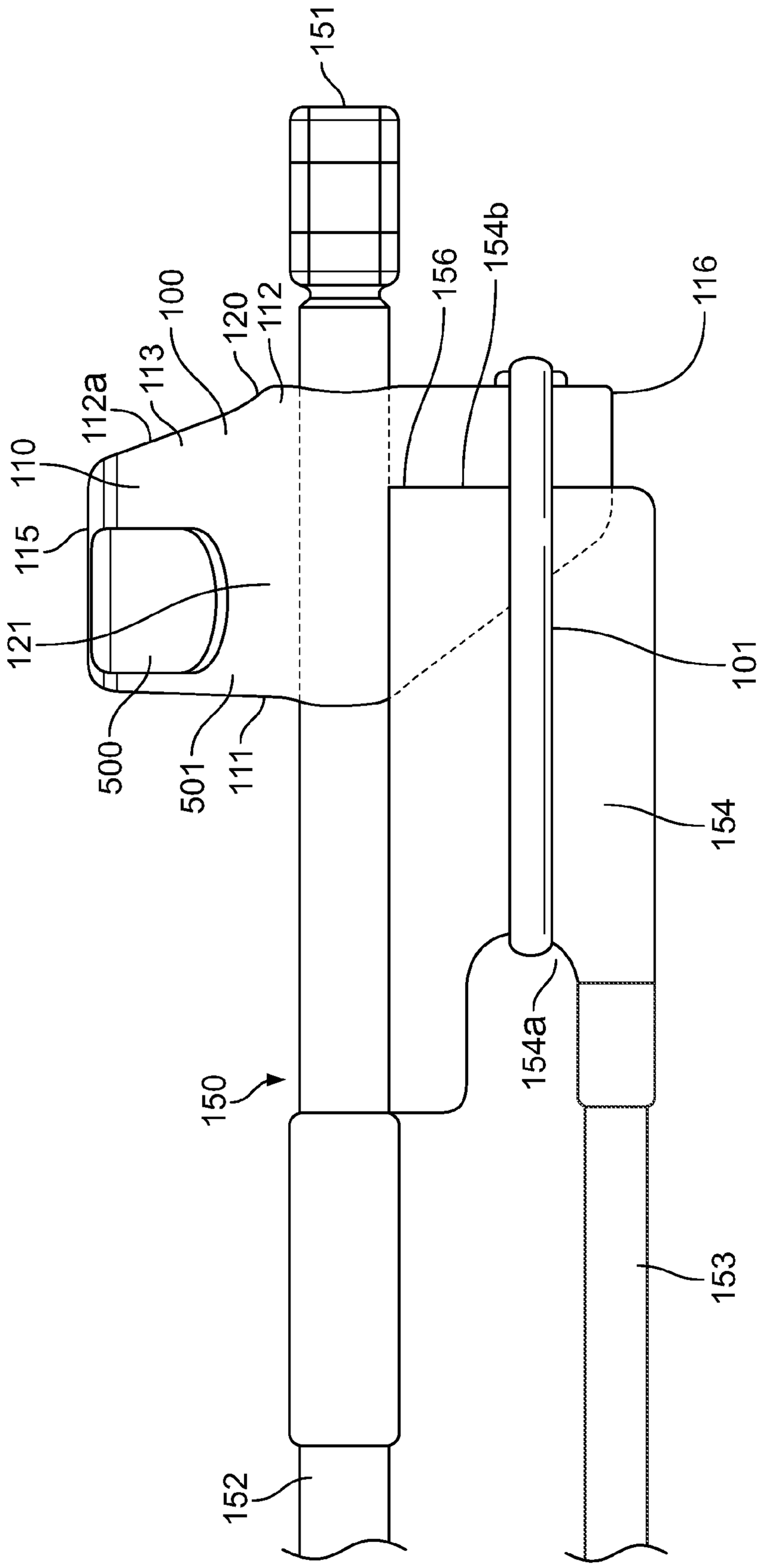
100
120
112
113
112b
116
156
154b
112a
801
110
115
121
500
101
501
111
154
900
154a
150
153
152

FIG. 1


151
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153

FIG. 2

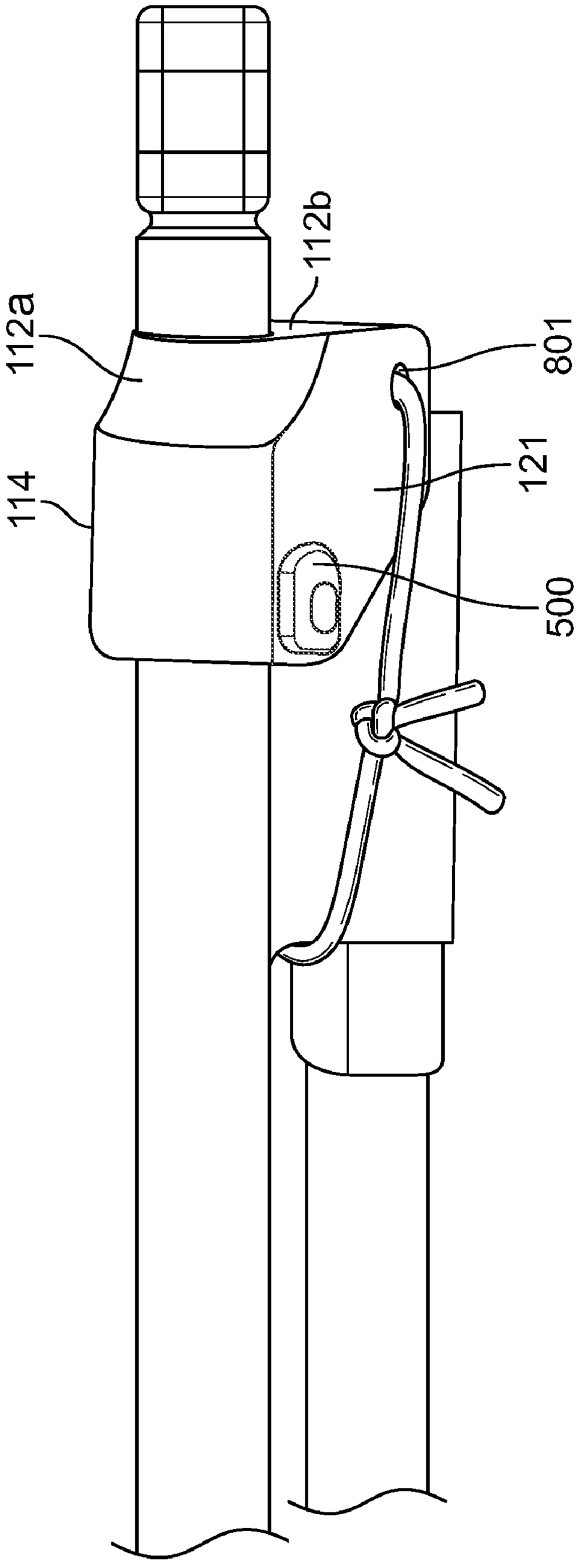
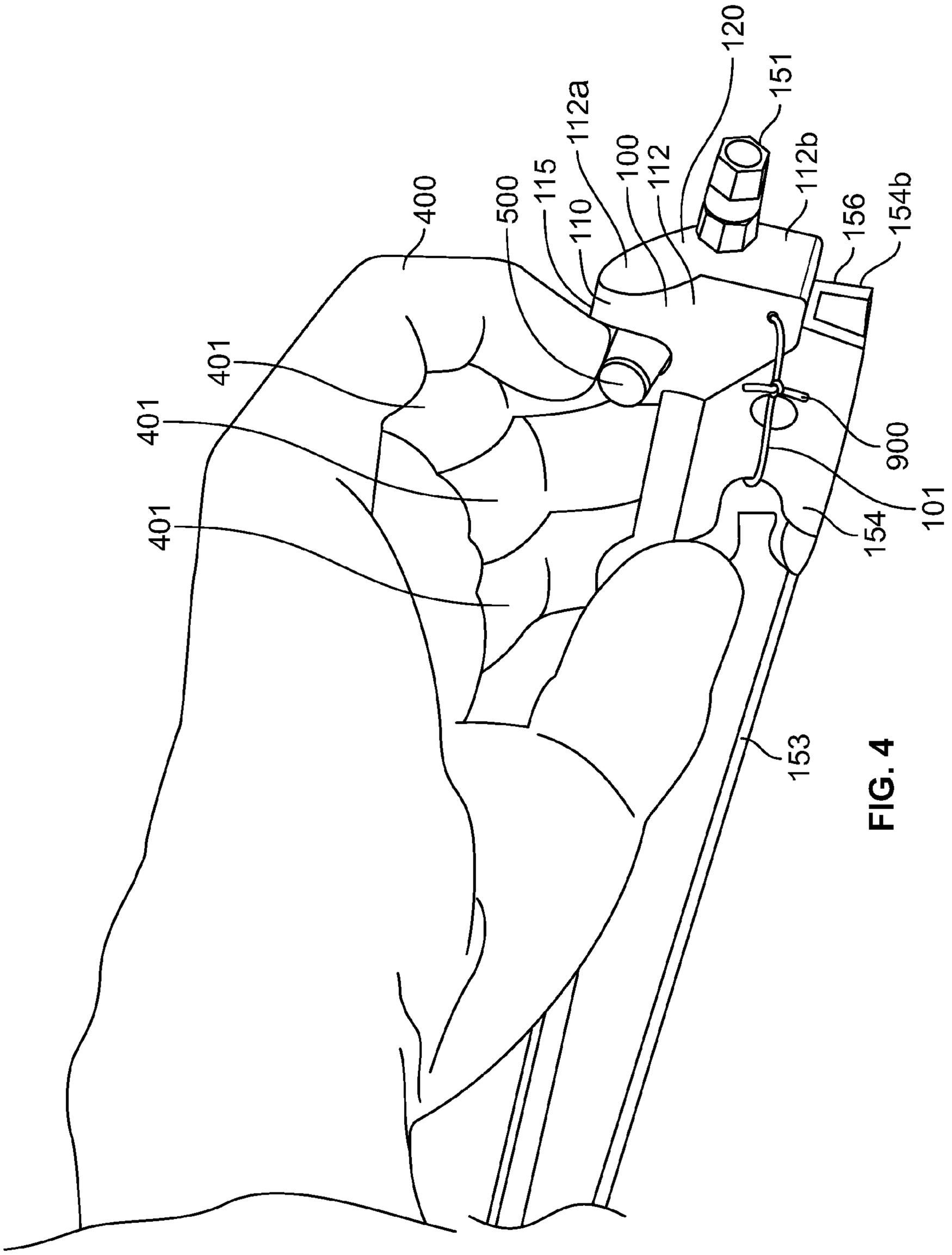


FIG. 3


120
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154b
401
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101
154
153

FIG. 4

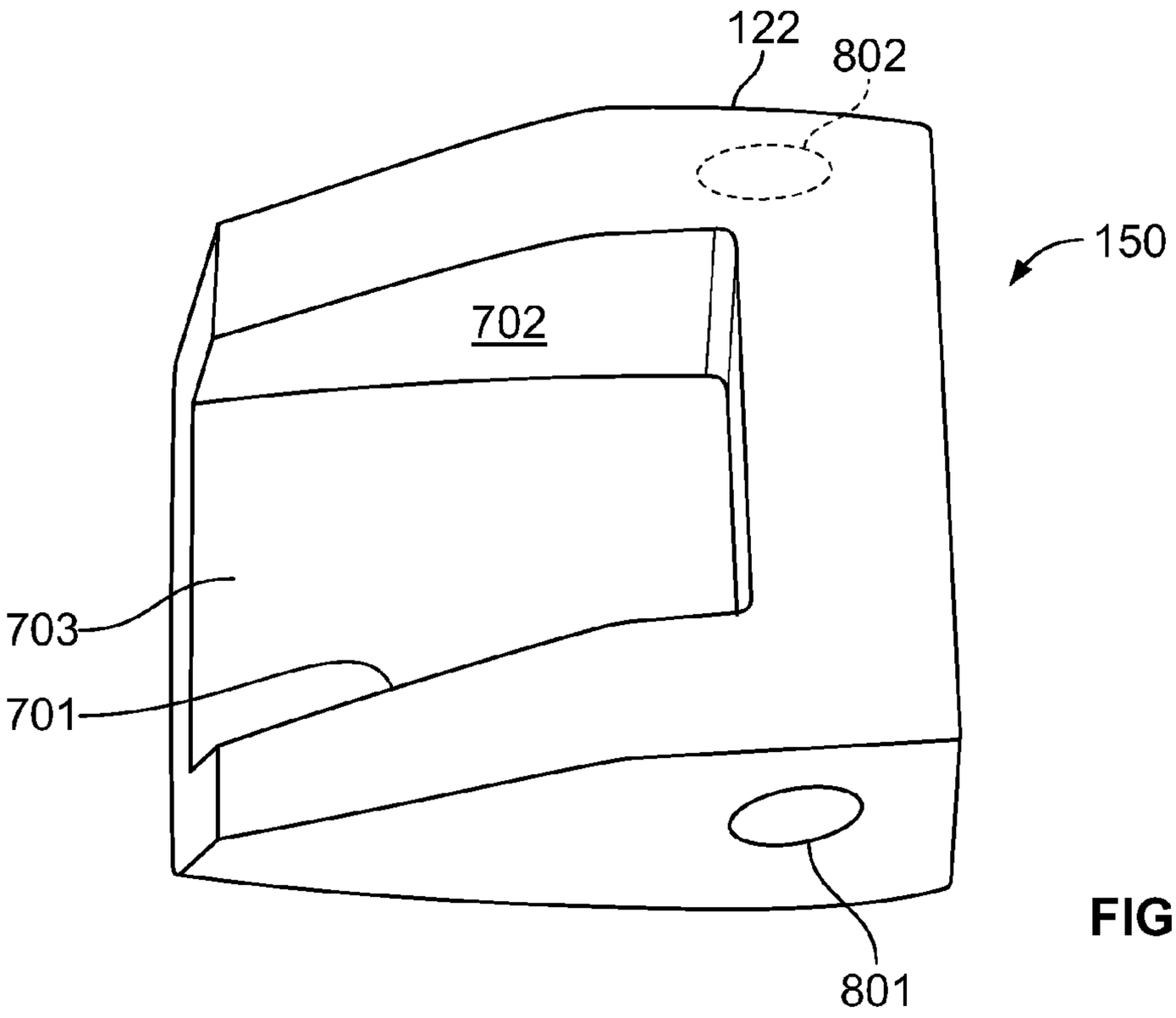

FIG. 5

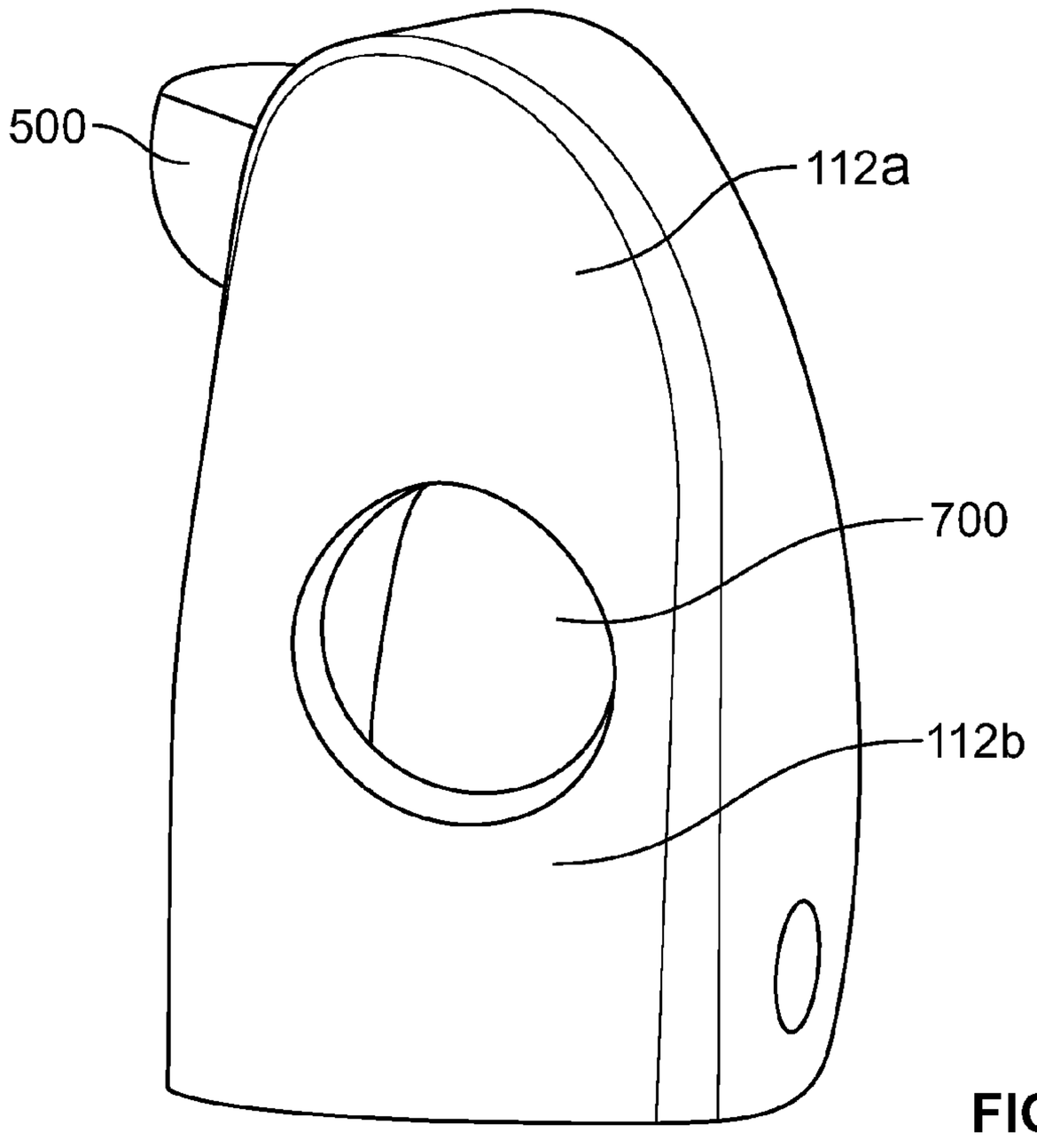

FIG. 6

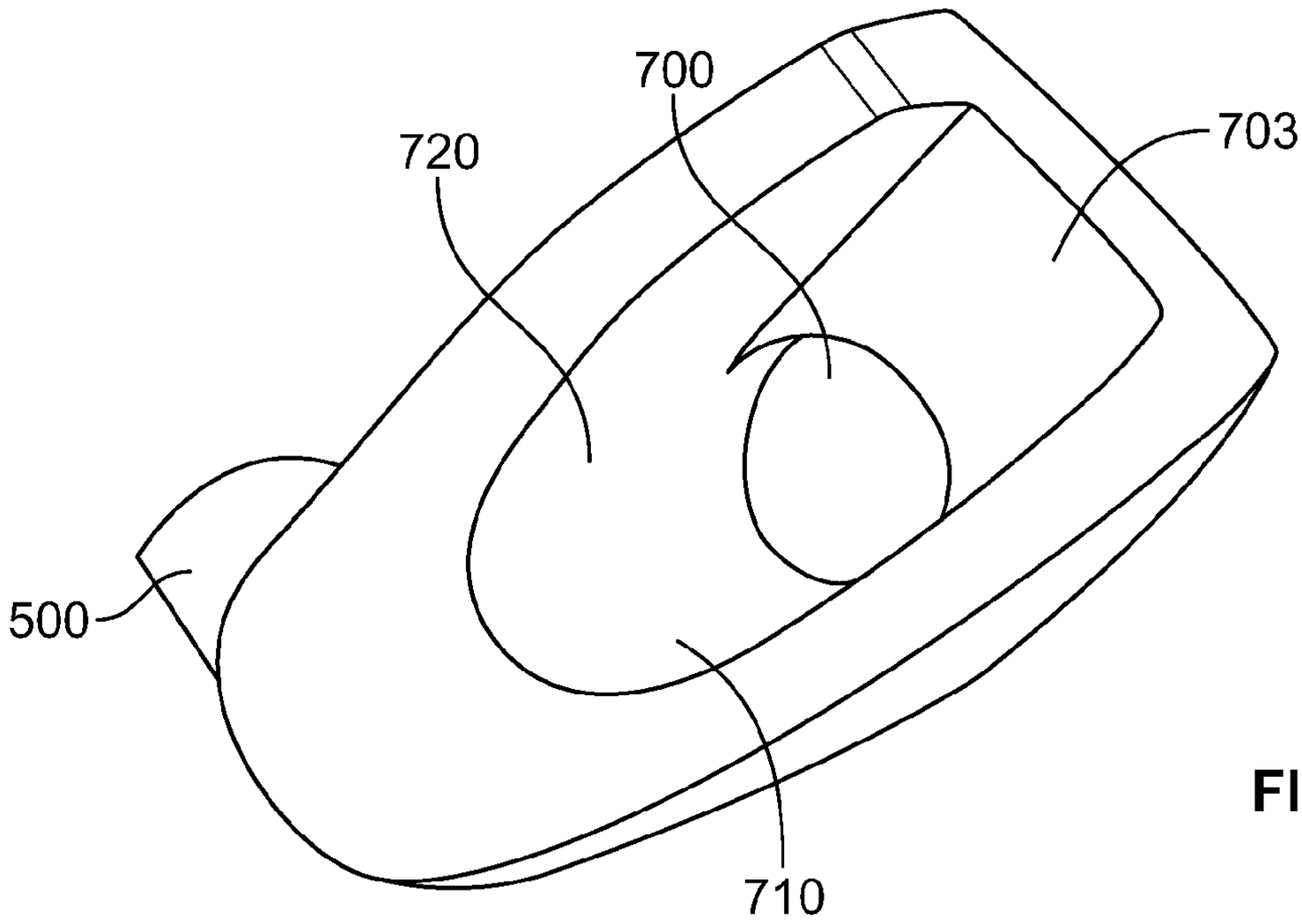

FIG. 7

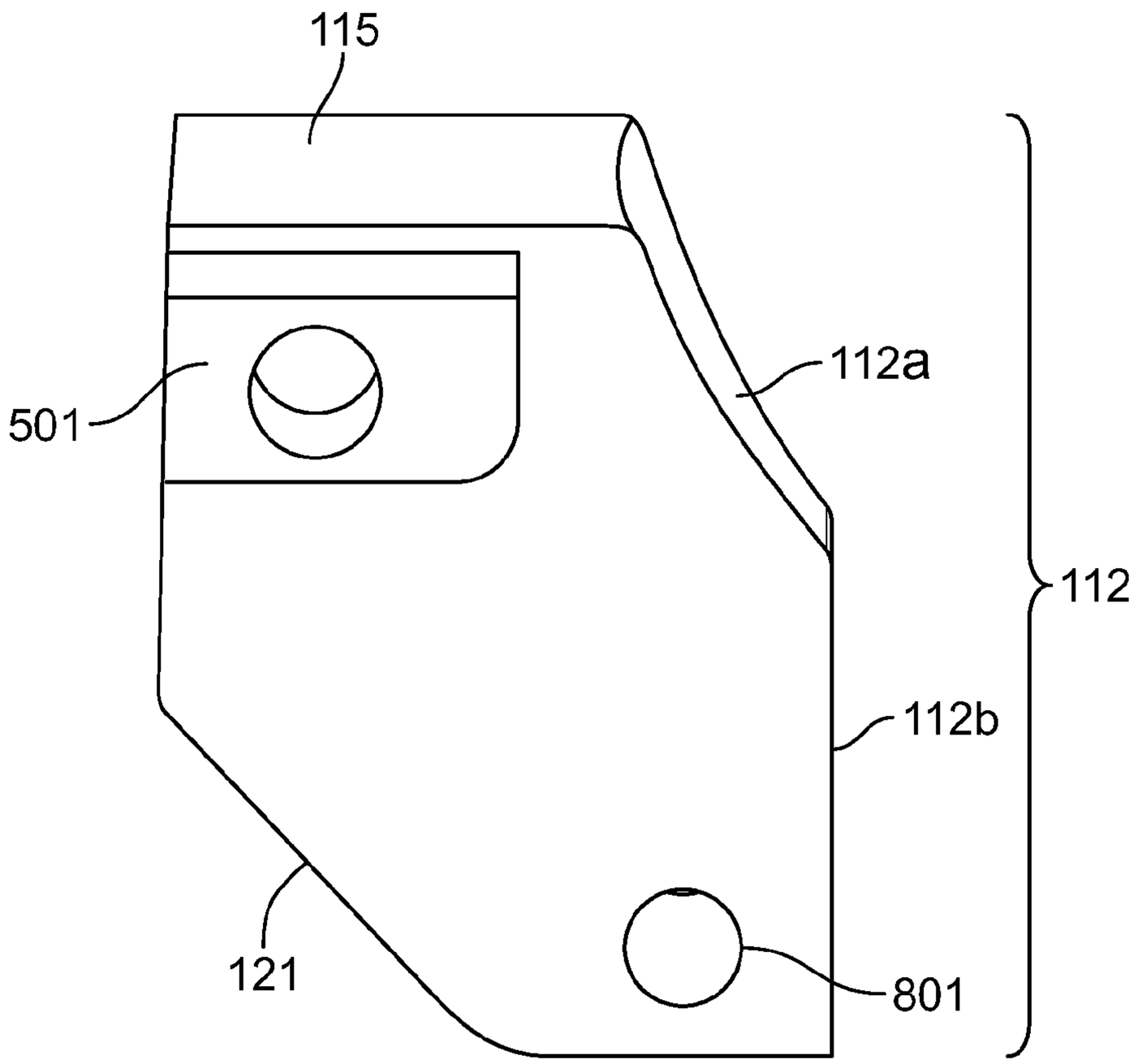

FIG. 8

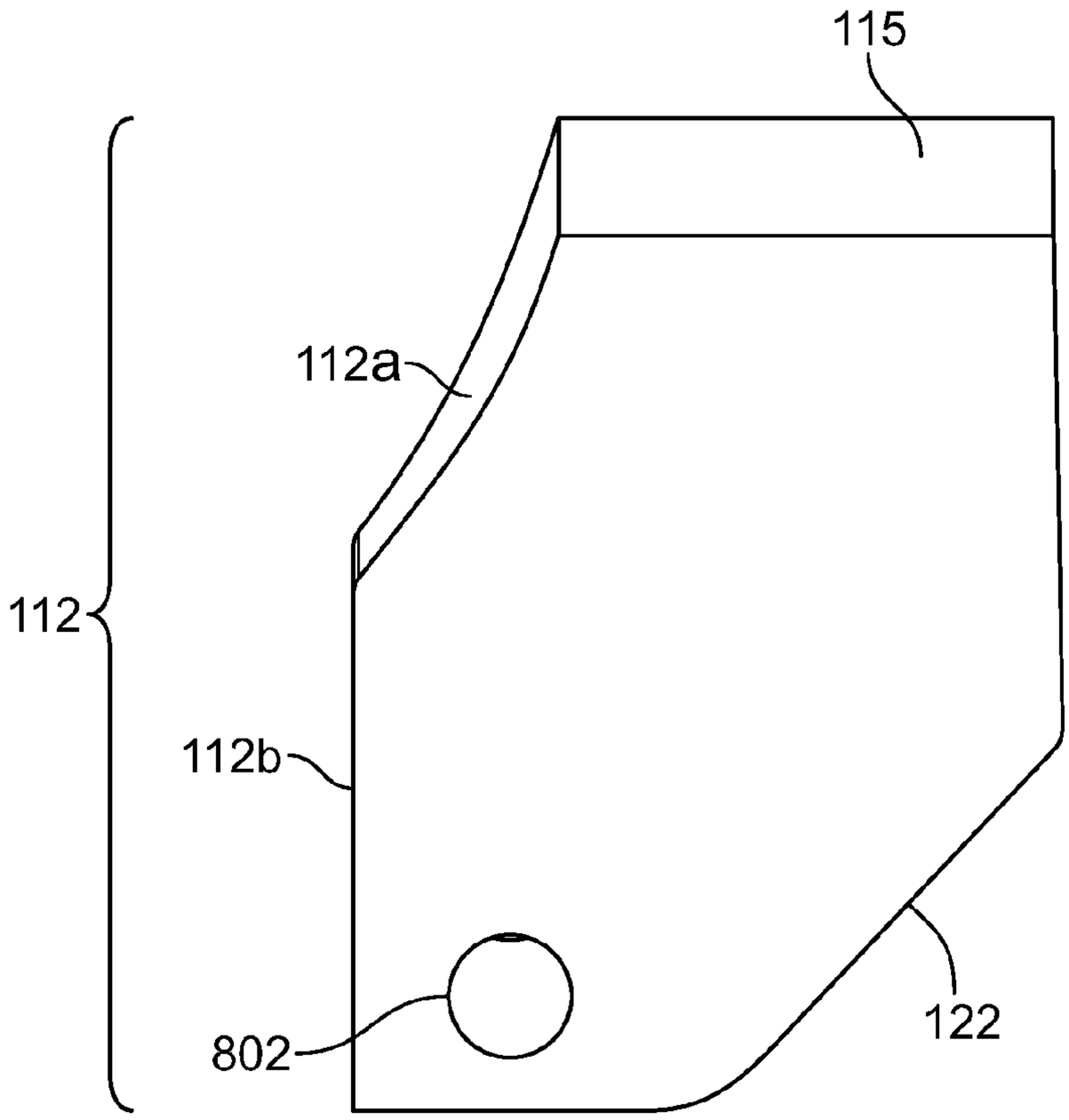

FIG. 9

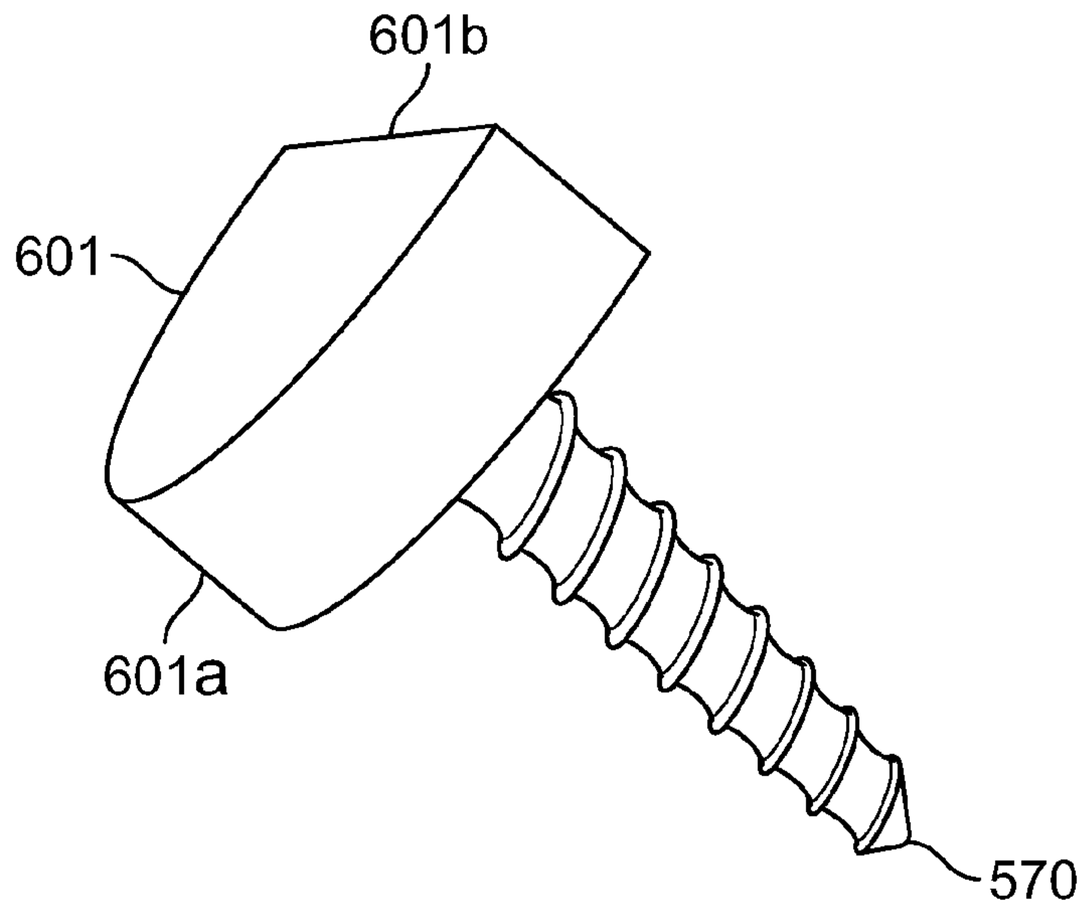

FIG. 10

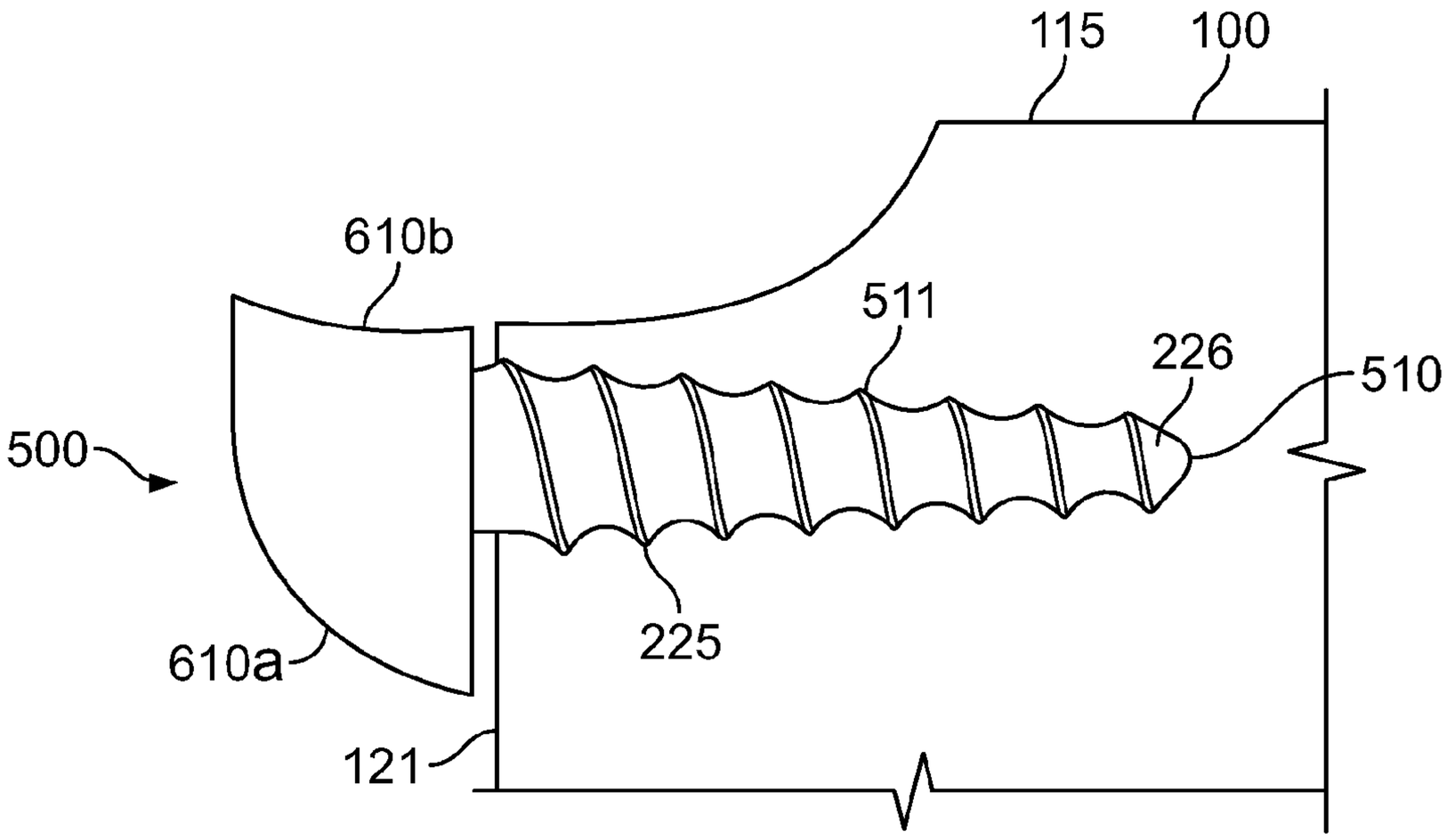

FIG. 11

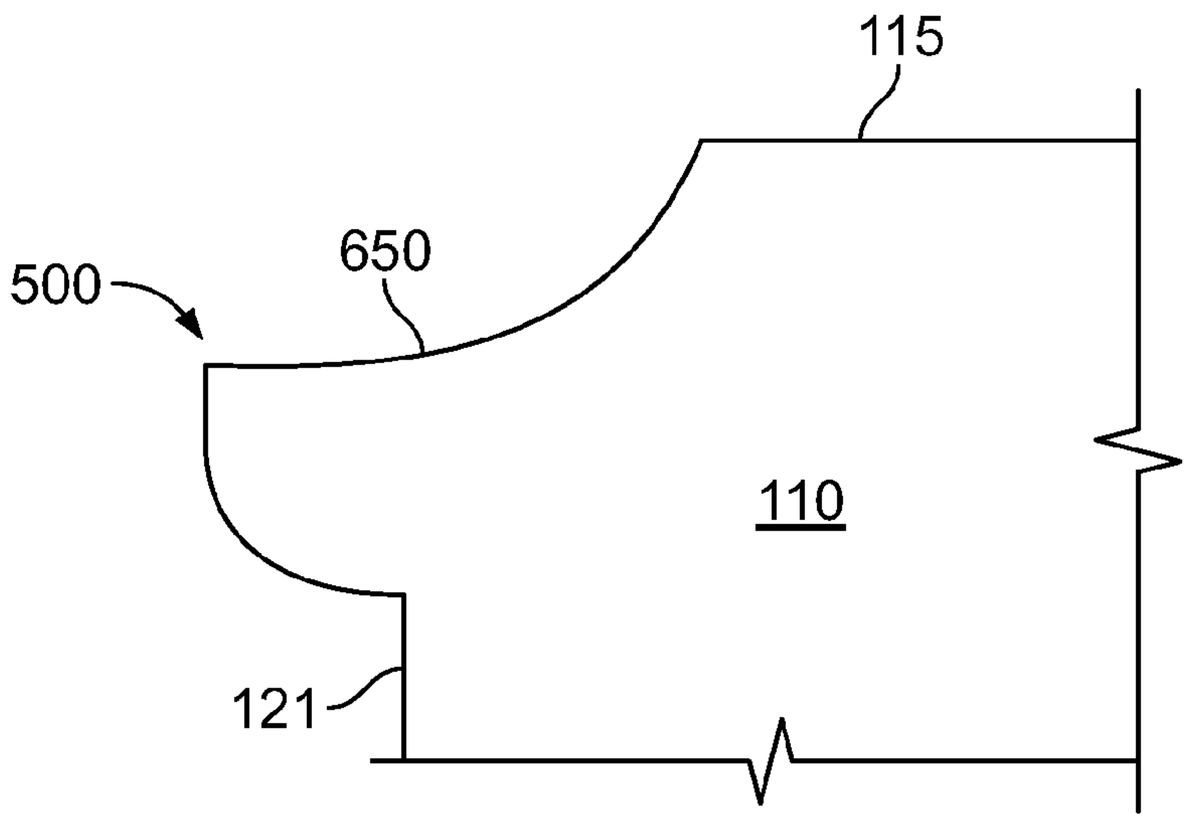

FIG. 12

BOW ATTACHMENT

FIELD OF THE INVENTION

The present invention relates in general to a device that attaches to the end of a bow to compensate for a smaller or under-developed finger.

BACKGROUND OF THE INVENTION

Stringed instruments such as the violin, cello, or viola require the user's ability to properly hold the bow. Typically the bow is held in a down stroke position or an up stroke position. The musician's fingers are quite arched in the standard down stroke position. The thumb is slightly bent. The musician's fingers are slightly more elongated in an upstroke position. Relaxed fluid movement in the arm, wrist and hand are necessary to master the instrument. Proper positioning of the fingers aid in obtaining the proper manipulation of the bow. Improper positioning of the fingers causes the musician to work harder to hold the bow and may even cause the musician to lose interest in playing a stringed instrument.

SUMMARY OF THE INVENTION

This invention introduces a device that attaches to the end of a bow to compensate for a smaller or under-developed digit.

An aspect of an embodiment of the invention provides a block structure that attaches to the bow in a manner allowing the stick of the bow to slide through the block structure.

A further aspect of an embodiment of the invention provides a ledge that extends from the block allowing the digit to rest on the ledge.

A further aspect of an embodiment of the invention creates an extension between the bow stick and the smaller digit allowing the digit to participate in subtle manipulation of the bow.

Additional aspects, objectives, features and advantages of the present invention will become apparent from the following description of the preferred embodiments with reference to the attached drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a perspective view of the bow attachment device with a tie-style fastener on a bow.

FIG. **2** is a transparent perspective view of the bow attachment device with a strap-style fastener on a bow.

FIG. **3** is a top view of the bow attachment device on a bow.

FIG. **4** is a perspective view of the bow attachment device on a bow in use.

FIG. **5** is an illustration of the device on its first leg.

FIG. **6** is a back view of the bow attachment device.

FIG. **7** is an inside view of the bow attachment device.

FIG. **8** is a left side view of the bow attachment device.

FIG. **9** is a right side view of the bow attachment device.

FIG. **10** is a perspective view of the platform structure.

FIG. **11** is a perspective view of the platform structure attached to the device.

FIG. **12** is a perspective view of an embodiment of the device with a unitary platform structure.

DETAILED DESCRIPTION OF THE INVENTION

FIG. **1** is a perspective view of the bow attachment device **100** with a tie-style fastener **101** on a bow **150**. The bow **150**

features a screw **151**, stick **152**, hair **153** and a frog **154**. The vast majority of bows are used with string instruments, although some bows are used with musical saws and other bowed idiophones. The frog **154** has a front part **154***a* and back part **154***b*. The bow attachment device **100** features a block structure **110** having a front **111**, back **112**, left **113**, right **114**, top **115** and bottom side **116**. The bow device **100** may be made from ebony but other materials, often decorative, may be used as well. These materials may include ivory and tortoiseshell. The block **110** can be carved or cast in a hard, lightweight material such as hard plastic or vinyl for example. The front **111** of the block **110** is somewhat curved and meets the bottom **116** of the block **110** to form an obtuse angle. The back side **112** has a first plane **112***a* and a second plane **112***b* that meet to form an angle **120**. The second plane **112***b* is parallel to the back wall **156** on the frog **154** when the device **100** is positioned on the bow **150**. The left side **113** of the block **110** is the side that faces the user when the bow **150** is held. The right side **114** is opposite the left side **113**. Both the left **113** and right side **114** have identical shapes. The left side **113** is a first leg **121** extending from the top **115** of the block structure **110**. The right side **114** is a second leg **122** extending from the top **115** of the block structure **110**. FIG. **9** is a right side view of the bow attachment device illustrating leg **122**. The second plane **112***b* has an opening **700** sized to receive the stick **152** and screw **151**. The opening **700** is a somewhat circular shape. The opening **700** opens to the inside **710** of the block **110**. The inside **710** of the block **110** is underneath the block **110**. The opening **700** opens into a channel **720** inside the block **150** such that the channel **720** allows the block **150** to rest on the back portion **154***b* of the frog **154**. The channel **720** is the space inside **710** the block **110** between the first and second legs **121**,**122** and below the top **115** of the block **110**.

The bow **150** and screw **151** are inserted through the opening **700**. The device **100** is slid onto the bow **150** until the frog back portion **154** abuts the left and right inside walls **701**, **702** of the legs **121**, **122** and the back inside wall **703**, as shown in FIG. **7**. The device **100** rests slightly above the bottom of the frog **154** so that the connecting holes **801**, **802** are somewhat aligned with the front part **154***a* of the frog **154**. The first and second leg **121**, **122** features a first and second connecting hole **801**, **802**, respectively. FIG. **5** is an illustration of the device on its first leg **121**. The connecting holes **801**, **802** diameters are smaller than the opening **700** on the back **112** of the block **110**. The holes **801**, **802** are positioned in identical locations on each leg **121**, **121** such that they are aligned with each other on their respective legs. FIG. **3** is a top view of the bow attachment device **100** on a bow **150**. FIG. **3** illustrates the connecting hole **801** on the first leg **121**. FIG. **6** is a back view of the bow attachment device **100**.

The holes **801**, **802** are positioned behind where the frog **154** abuts the inside walls **701**, **702** so that a fastener **900** can extend through the holes **801**, **802** and around the front **154***a* of the frog **154** to secure the device **100** to the bow **150** and the fastener does not interfere with the frog **154** abutting the inside walls **701**, **702**, **703** of the device. The fastener **900** may form a loop and the ends may mate together or be tied together, as shown in FIG. **1**. Alternatively, the fastener **900** may be in the form of a band or strap that is received around the front part **154***a* of the frog **154**. FIG. **2** is a transparent perspective view of the bow attachment device **100** with a strap-style fastener **900** on a bow **150**.

The first leg **121** features a platform **500** on the leg **121**. FIG. **8** is a left side view of the bow attachment device **100** showing the first leg **121**.

The platform structure **500** acts a ledge located substantially near a top portion **501** of the first leg **121** and extending outwardly from the first leg **121** such that a fourth finger **400** may be elevated when it sits on the ledge, as shown in FIG. **4**. FIG. **4** is a perspective view of the bow attachment device **100** on a bow **150** in use. The device **100** is in use when a user handles the bow **150**. The ledge **500** lifts the fourth finger **400** above other fingers **401** on the bow **150**.

FIG. **10** is a perspective view of the platform structure **500**. The platform structure **500** is a ledge having a semi-circular body **601** with a rounded bottom **601***a* and a flat top **601***b*. Additional body shapes such as square, rectangular or any polygonal shape can be used for the shape of the structure **500**. The fourth finger **400** contacts the flat top **601***b* when the device **100** is in use. The platform structure **500** is sized such that only the fourth finger **400** rests on the top **601***b* when the bow **150** is handled properly. When handled properly, only the fourth finger **400** is positioned such that it is supported by the platform structure **500**. The fourth finger **400** is elevated higher than all the other fingers when it is positioned on the structure **500**. FIG. **11** is a perspective view of the platform structure **500** attached to the device **100**. The block **110** can have an opening **225** on the first leg **121** having block threads **226** that receive the platform **500**. The platform **500** can have a platform extension **510** which have platform threads **511** that mate with the block threads **226**. In this embodiment, the platform **500** can be screwed to the first leg **121**. Alternatively, the platform extension **510** may be glued or fitted inside the platform threads **511** without screwing. Alternatively, the platform structure **500** may not require an extension **510** and the structure may be attached to the device **100** by known attachment methods. FIG. **12** is a perspective view of an embodiment of the device with a unitary platform structure **500**. Rather than attaching the structure to the device, the structure **500** can be formed so that the structure has a top **650** that extends outward on the first leg **121**. The top **650** is an extension of the top **115** of the device and dips downward so that the finger **400** can rest on the top **650** and be elevated about the other fingers on the bow.

If the bow stick is narrow so that the attachment slides on the bow, a piece of material can be positioned inside the space between the legs of the device and the frog to help fit the attachment snuggly to the bow.

The platform structure **500** allows a user with an underdeveloped or smaller fourth finger **400** to arch the finger **400** for adequate handling and manipulation of the bow **150**. The device **100** creates an extension between the bow stick **140** and the smaller digit **400**.

The invention has been described in detail with particular reference to certain preferred embodiments thereof, but it will be understood that variations and modifications can be effected within the spirit and scope of the invention.

The invention claimed is:

1. A bow attachment device for a bow having a stick and a frog, the frog having a front frog part and a back frog part, the device comprising:

a block structure having a front, back, left, right, top and bottom side,

a first and second leg extending from the top of the block structure, wherein the first and second leg comprise a first and second connecting hole, respectively;

a fastener extending through the first and second hole and around the front frog part to secure the device to the bow; and

a platform on the first leg, wherein the platform is a ledge substantially near a top portion of the first leg and extending outwardly from the first leg such that a fourth finger is elevated when it sits on the ledge;

wherein the block structure comprises an opening on the first leg having block threads that receive the platform, wherein the platform has platform threads that mate with the block threads.

2. The bow attachment device of claim **1**, wherein the opening opens into a channel inside the block such that the channel allows the block to rest on the back portion of the frog.

3. The bow attachment device of claim **1**, wherein the first and second hole are aligned with each other on their respective legs.

4. The bow attachment device of claim **1**, wherein the fastener is a band.

5. A bow attachment device for a bow having a stick and a frog, the device comprising:

a block structure having a back side and a first and second leg, wherein the first and second leg comprise a first and second connecting hole, respectively;

wherein the back side comprises an opening that receive the stick and opens into a channel inside the block sized to allow the inside of the block to rest on the frog;

a platform on the first leg, wherein the platform is a ledge substantially near a top portion of the first leg and extending outwardly from the first leg;

wherein the ledge comprises a body with a substantially flat top;

wherein the block structure further comprises an opening on the first leg having block threads that receive the platform, wherein the platform has platform threads that mate with the block threads.

6. The bow attachment device of claim **5** further comprising a fastener extending through the first and second connecting hole and around the frog to secure the device to the bow.

7. The bow attachment device of claim **5**, wherein the channel is the space inside the block between the first and second legs and below the top of the block.

8. A method of handling a bow comprising:

providing a bow having a stick, screw and a frog;

providing a bow attachment device comprising a block structure having a back side and a first and second leg, wherein the first and second leg comprise a first and second connecting hole, respectively;

providing an opening on the back side;

providing a platform on the first leg, wherein the platform is a ledge substantially near a top portion of the first leg and extending outwardly from the first leg;

wherein the block structure comprises an opening on the first leg having block threads that receive the platform, wherein the platform has platform threads that mate with the block threads;

providing a channel inside the block;

inserting the screw of the bow through the opening on the back side of the block until the channel receives the frog;

extending a fastener through the first and second connecting holes and around the frog to secure the device to the bow.

9. The method of handling the bow of claim **8** further comprising: manipulating the bow such that a fourth finger is elevated above other fingers when the fourth finger sits on the ledge.

* * * * *